

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
9 June 2005 (09.06.2005)

PCT

(10) International Publication Number  
**WO 2005/052522 A1**

(51) International Patent Classification<sup>7</sup>: **G01F 17/00**, 23/14, 22/02

(21) International Application Number:  
**PCT/GB2004/004698**

(22) International Filing Date:  
8 November 2004 (08.11.2004)

(25) Filing Language:  
English

(26) Publication Language:  
English

(30) Priority Data:  
0327026.1 20 November 2003 (20.11.2003) GB

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(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

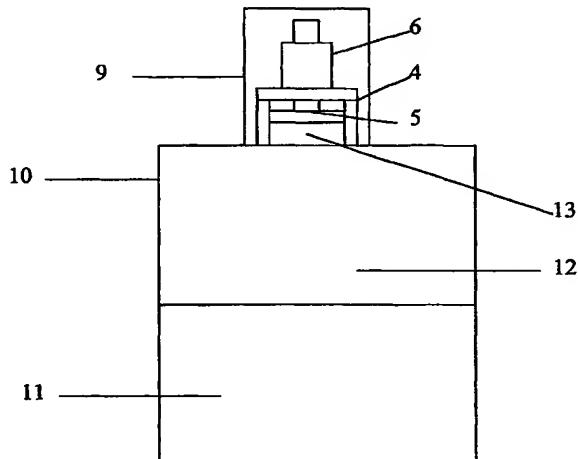
(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: VOLUME MEASURING DEVICE



WO 2005/052522 A1

(57) Abstract: The volume measuring device (9) is a linear solenoid-based piston-type device designed to measure the separate gaseous (12) and non-gaseous (11) volumes of a di-phasic mixture within a vessel (10). The invention is attached to a vessel containing the materials as illustrated in Figure 9, and effects a small change in volume of the gaseous fraction of material in the vessel. During each solenoid piston (5) stroke the invention takes a continual series of measurements. By applying a technique derived from Boyle's Law and other algorithms the invention determines the volume of the gaseous fraction of material within the vessel. The volume of the non-gaseous fraction is determined by subtracting the gaseous volume from the known volume of the vessel. Significantly, there is no requirement for knowledge of the absolute pressure or temperature.